COST ENGINEERING
Volume 28

ENVIRONMENTAL COST DOCUMENTS

By Jim Peterson, HTRW CX

The HTRW CX has developed and worked on a number of environmental cost documents the past few of years to assist the districts in developing cost estimates. This article provides a brief description of each document and corresponding web addresses for your reference and use.

- EPA & USACE "Guide to Developing and Documenting Cost Estimates During the Feasibility Study". This document describes how to develop more complete, accurate, and consistent estimates by presenting clear procedures and resources during the Feasibility Study phase and to improve documentation by presenting a standard format and checklist. Web Address: http://www.hq.usace.army.mil/cemp/e/ec/ec-regs.htm#anchorER under the header "Environmental Cost Estimating Guide"

- EPA & USACE "Guide to Preparing and Reviewing Remedial Action Reports of Cost and Performance". This document provides confirmation that the remedy outlined in the Record Of Decision has been fully implemented, that cleanup goals have been achieved, that key observations and lessons learned have been documented, and

summarizes project cost and performance information. Web Address: http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1110-1-19/toc.htm

-EPA "Guidance on Preparing Independent Government Cost Estimates (IGCE's)". This document presents estimating costs and procedures for preparing and documenting IGCEs, and for comparing contractor proposal verses IGCEs. This document will be complete in December 2001. Web address will be established at that time.

-Remedial Action Work Breakdown Structure (RA WBS) and Operation and Maintenance Work Breakdown Structure (OM WBS) February 1996. These structures help provide standardized means to categorize costs in estimates. Web address: http://www.environmental.usace.army.mil/info/technical/cost/costtool/costtool.html

-The Environmental Bulletin. Explains the cost engineering capabilities throughout the entire Corps of Engineers and briefly explains the HTRW CX cost initiatives. This document is currently being revised and will be updated in FY 2002. Web address: http://www.hq.usace.army.mil/CEMP/E/EC/PDF/eng-bul-june97.PDF

-Report on Treatment, Storage, & Disposal Facilities (TSDF) for HTRW. This report is designed to provide cost engineers with valuable source information regarding charges associated with the disposal of RCRA Subtitle C hazardous wastes. Included with the report are subject narratives, tables and figures, and contact details. The report is being updated in FY 2002. Web address: http://www.environmental.usace.army.mil/library/pubs/tsdf/tsdf.html

-HCAS (Historical Cost Analysis System). This program is a historical cost collection software program of past environmental projects. It also contains a table of technology unit cost ranges from past projects. Web address: http://www.environmental.usace.army.mil/info/technical/cost/cost.html under "Tools and Databases"

-Construction Cost Engineering Instructions Manual. This manual contains HTRW specific cost engineering guidance at the end of each chapter. Web address was: http://www.hnd.usace.army.mil/techinfo/ei/ei01d010.pdf This web address will be changed in the near future however, because the document is being revised into a Technical Instructions manual.

If you have any questions about the above documents or programs, please call us at the HTRW CX.

WELCOME ABOARD GIL

By Ray Lynn, HQ, CECW-EIC

The Cost and Economic Team welcomes a new member, Gil Kim, to the Engineering and Construction Division, Directorate of Civil Works, HQUSACE. Gil arrived here from the Far East District in Seoul, Korea on 12 November to join the Cost and Economic Team in the Infrastructure Branch.

He was the Chief of Engineering Services Branch, Engineering Division, Far East District in Seoul, Korea, before his transfer. Gil was responsible for Cost Engineering, A-E Contracting, Value Engineering, and

provided the oversight, coordination, and leadership to complete the FED Quality Management Plan (QMP) for Engineering and Construction. He also served on Pacific Ocean Division (POD) PMBP/ISO Integration Steering Committee and facilitated the development of the FED ISO 9001:2000 certification process.

Gil's responsibilities here will be to provide the command oversight on Civil Works cost engineering policy, regulations, guidance technical bulletins, engineering instructions, and Tri-Service Cost Engineering Support Programs – Equipment Manual (EP 1110-1-8), Construction Cost Indices (EM 1110-2-1304), Dredge Estimating Program (CEDEP), and HAG.

Gil is a graduate of Mississippi State University with a BS in Electrical Engineering and a MS in Engineering Management. He started his career with the Corps of Engineers at the Waterways Experiment Station (WES) and then moved to Vicksburg District and Mississippi Valley Division before going to the Far East District.

Gil is married to Gina Allen Kim of Jackson, Mississippi and has two sons – Chad (Senior in College) and Brandon (Junior in High School). He and his wife love to travel – Korea, Beijing, Bangkok, Phuket, Hong Kong, Macau, London, Germany, Saudi Arabia, Kuwait, and Greenland - and have been to every state except Idaho, Montana, and Wyoming. His hometown is Vicksburg, Mississippi.

WE'RE COMING TO A FUDS DISTRICT NEAR YOU!

FUDS Quality Assurance Review for FY 2003 Budget and Beyond

By Kate Peterson, CENWO-HX-T

The Formerly Used Defense Site (FUDS) Program is currently undergoing review by several external agencies. From the Cost to Complete (CTC) estimates to the No Department of Defense Action Indicated (NDIA) determination stage, our FUDS data is being carefully scrutinized. Recently, the General Accounting Office (GAO) and the Army Audit Agency (AAA) looked at the FUDS program and associated estimates and identified these areas of concern:

GAO Audits
– Status of FUDS Cleanup Actions as Indicated in FUDSMIS
– Basis for NDIA-I Determination at 4,100 FUDS Properties
– FUDS Outreach to Regulator/Stakeholders
– Records on Initial FUDS Inventory and Process for Identifying Area of Environmental Contamination (Particularly in Guam)
– DERP Environmental Liability (Including FUDS)
– DERP PRP Cost Sharing and Cost Recovery (Including FUDS)
– Spring Valley

AAA Audits
– Environmental Liability for Unexploded Ordnance
– FUDSMIS System Development and Integration with RACER

Information from October USACE MP Briefing

CTC estimates must be updated each year according to the Defense Environmental Restoration Program (DERP) Management Guidance. For the past 3 years the Hazardous, Toxic and Radioactive Waste Center of Expertise (HTRW CX) has conducted quality assurance reviews on the

FUDS CTC estimates. This year the HTRW CX will once again perform a QA review of the CTC estimates. However, the FY 2003 budget QA reviews will be more comprehensive in nature than in previous years and will include a QA review of additional project documents in conjunction with their review of the CTC estimates. In order to ensure that the FUDS program has consistent, credible, and defensible data for each FUDS project in the FUDS Management Information System (FUDSMIS), the quality assurance (QA) review team will take its show on the road to each FUDS district to perform QA review of project CTC estimates, administrative record files, project files and other project related records.

The QA review teams will consist of representatives from the HTRW CX and the Ordnance and Explosive Center of Expertise (OE CX). Each team will consist of an HTRW cost engineer, OE cost engineer, HTRW Regulatory Specialist and an OE CX team member. A QA review team will visit each FUDS district and review a random sample of FUDS project files, the data in FUDSMIS associated with that project file, the project cost to complete and the administrative record files. In addition, the team will provide brief instructions on development of cost to complete estimates, tips on FUDSMIS data maintenance, and administrative record training.

The team's goal is to ensure that the FUDS program has defensible data from the cost to complete stage to the NDIA determination in order to stand up under GAO and AAA scrutiny and to adequately support future FUDS budget requests.

– A QA team will be coming to your district soon!

RETIREMENT OF JAN JAMES

By Lawrence W. Werner, Huntsville Center

Jan James recently took action to initiate her retirement from Federal service of twenty years. Her final day will be 31 December 2001. A retirement luncheon is planned for 13 December 2001 followed by a retirement ceremony on 19 December 2001.

Ms. James worked in the Cost Engineering Division for the past 17 years at Huntsville Division and Huntsville Engineering and Support Center. She served as the secretary for the Cost Engineering Branch from April 1985 until July 1992. Jan took an upward mobility program analyst position within the Automated Systems Branch on the Programming, Administration and Execution (PAX) System in July 1992 and worked on the PAX team until November 1998. At that time, Jan began as a Project Management Specialist on the Tri-Service Automated Cost Engineering System (TRACES) Team until her retirement.

Jan has performed many tasks for the TRACES Team for the past three years and has become valuable team member. She has been instrumental in successfully planning several cost engineering workshops and many Cost Engineering Steering Committee Meetings. Jan participated on the Unit Price Book Review Team, was responsible for editing the Cost Engineering Newsletter, and maintaining the Cost Engineering Telephone Directory.

We will miss Jan very much and wish her health and happiness in her upcoming retirement.

COST ENGINEERING ANNOUNCEMENTS

Transatlantic Programs Center:
Due to an extraordinarily heavy workload, the Transatlantic Programs Center (TAC) is soliciting cost estimating volunteers for 120-day TDY assignments in Winchester, VA. (Winchester is located in Shenandoah Valley, approximately 70 miles West of Washington, DC). The TDY assignments are expected to start in early January 2002. There would be a need for 4 Cost Estimators, one from each discipline (Architectural, Civil/Structural, Mechanical, and Electrical). All costs (labor, travel, per diem etc.) will be paid by TAC. If you are interested and/or need additional information, please contact Mr. Ravi Grewal at (540) 665-3901 or send an e-mail to Ravinder.S.Grewal@usace.army.mil .

Important CEDEP Info From Walla Walla District

If any offices have an old CEDEP CD diskette (Nov 1998). Please destroy them. They will corrupt the system file on the PC, thus causing great havoc and distress.

Please take the time to get rid of them........... We sent this message out several years ago, and are still having offices use them, as new people enter the workforce, not realizing the problems. If you need to get CEDEP you can download a copy at http://www.nww.usace.army.mil/cost/ or give us in Walla Walla a call.

You should receive copies of the latest EP 1110-1-8 Equipment Ownership and Operating Expense Schedule on CD. Please make sure to share the CDs with construction. We will be completing the MCACES equipment data files to be sent out or downloaded within the next 2 weeks.

Our website is still. **http://www.nww.usace.army.mil/cost/**

COST RISK

By Rex McLaury, Huntsville Center

Background:

The TRACES Team (Automated Systems Branch, Cost Engineering Division, Engineering Directorate) has recently completed the development of a new cost engineering software package appropriately named "Cost Risk" (Version 3.1). Cost Risk is designed to assess the risk factors, which may impact the construction cost estimate, and determine what effect these risks have on the overall estimate. With Cost Risk, the cost engineer can provide the project manager information about the potential of cost overruns that may be associated with a project. The concept for Cost Risk dates back more than five years ago from a quote… "…we are shifting the burden from estimators to those who make [policy] decisions…We are able to say: If you want 90% confidence in a project, this is the cost; if you want 60% confidence, here is the number, but you take the responsibility for it…" {Quote from former Corps chief cost engineer, Mr. Ronald Hatwell in ENR/November 6, 1995 issue}. This became the cornerstones for the need to develop a useful tool that not only could interface with existing cost estimating programs today, but could also perform risk analysis to produce this confidence factor. With Cost Risk, the cost engineer can potentially point out the high risk factors,

which are affecting the estimate and work with the project manager and project development team in order to remove or reduce the riskiness of these factors. By performing better design brochures, more soil sampling, and etc., the Project Development Team may be able to resolve the issues resulting in the risk associated with the project. This newly developed system could provide cost engineers, project managers, and others interested in 'bottom dollar' cost with a quick way to assess the risks that may be associated with the project resulting in a confidence report with applicable contingency percent applied. This number could be the basis of ensuring that appropriated funds do not exceed the congressional programmed amount. Cost Risk could be applied to several available work breakdown structures (WBSs) for related construction types (Military, Civil Works, and HTRW).

Cost Risk was initially developed by Talisman Partners, Ltd (developers of RACER and PACES programs used by DoD), located in Denver, Colorado. The design guidance for Cost Risk was provided by Dr. James Diekmann (professor and technical expert in risk analysis from University of Colorado, Boulder). To ensure both logic and "usability", Cost Risk had to be consistent with Cost Engineering software used today. Namely, to interface with two parametric cost estimating programs, RACER and PACES. Cost Risk also needed to interface with a commercial-off-the-shelf add-on to MS Excel namely, Crystal Ball 2000. Crystal Ball is the computational engine "workhorse" for the Cost Risk program. Handling complicated math processes subjected to a technique known as Monte Carlo simulations, a report can be generated, evaluating the entire range of results possible for a given situation. This is useful to the decision-maker as it allows them to determine the "riskiness" of a project and set forth an appropriate contingency amount for a given level of confidence. Cost

Risk can be used on Windows 95/98/NT/2000 operating systems.

What is the Latest:
Since the initial completion of the software (Cost Risk 1.2), January 2001, the Department of Energy has shown great interest in the use of the software and has requested a few minor changes be made to the software to accommodate their needs. This new version is called Cost Risk 1.3 resulting from these new requirements. Cost Risk (to include the Crystal Ball Software) is available to each Army Corps District (which some have received already). The Navy, Air Force, and DoE may obtain the Cost Risk software "by-request-only", but will need to provide funding for the purchase of the Crystal Ball software which is at a reduce rate via Army purchase order. It must be mentioned though; no training or hotline support is currently available for Cost Risk (pending funds).

What is Planned for FY02:
With proper funding, plans include the development of a Computer Based Training (CBT) program as a long-term benefit for Corps. CBT is an interactive tutorial on CD-ROM, which can be distributed with the Cost Risk software and/or available for download from TRACES Web Page. Although CBT will have a high initial cost to develop, benefits in the long run will be realized as cost engineers needing training can simple run the CD-ROM and work at their own pace or refresh what had been forgotten in the convenience of their office. Of course, during the development process, workshop training sessions will be offered to determine what will become CBT. Taking advantage of these opportunities may be beneficial.

What the future Holds:
At this time while cost engineering resources are being geared away from bid opening estimates to the preparation of budgetary

estimates, Cost Risk provides a valuable tool for evaluating the risks associated with the project. Cost Risk is destined to become an important part of the cost engineering package maintained by the TRACES Team.

- Ensure data is submitted by the Districts & is accurately entered into the Master Database
- Ensure ECPs are created and tracked to completion

HAG 2.2

By Rex McLaury, Huntsville Center

Status:

- HAG 2.2 program review and acceptance is complete.
- Includes English/Metric UOM "filter", OSD Report Changes, and other minor changes

  - HNC will update ENR, ACF, and Systems Tables before shipping out
  - Suspense for all new Data from Army, AF, Navy: 19 Dec 2002. (AF data is complete)
  - The New Database will be named: HAG2002.hgh
  - Program & Database will be ready for download (including support system update files) from TRACES FTP by Jan 2002
  - URL: www.hnd.usace.army.mil/traces/whats-new.asp
  - Will be available on NIBS-CCB for next quarterly release (CD-ROM)

Future: HNC will:

- Consider reestablishing the HAG Steering Committee:
- Determine Tri-Service Needs: 32-bit platform, XML, Other enhancements (Eng./Met. UOM conversion, performance/reliability improvements, etc.)
- Voice support & funding requirements

TRACES WEB PAGE UPDATE

By Rex McLaury, Huntsville Center

What had been completed since last Steering Committee Meeting (Dec 2000):

- HAG FTP, ECPs, FAQs, improved calendar performance, AE registration page for TRACES Modules, and new Corps username/passwords
- www.hnd.usace.army.mil/traces/whats-new.asp

What's Going on Now:

- Working on funding/scheduling requirement for new HAG FTP database site with ARA only capability (similar to what is currently available, but with different functionality). The expected completion date is Feb 02.
- Working with IMO to develop new TRACES webpage within Corps requirements & HNC standards. Try to streamline and provide easier user functionality when navigating pages. The expected completion is May 02.

Web Page Reminders:

AE registration will be handled by the Districts.

- www.hnd.usace.army.mil/traces/downloads/freedownloads.htm
- Need to log on and use your username/password
  See examples on following pages…

Unregistered AE's to provide districts required information shown in "username and password" located on TRACES Greetings Page.

Registered AE's may download MCACES, MFW, and UPB2001.

AE's will only need a username/passwords (like Corps) if they need to access Public Folder on FTP site. Using the FTP site allows large files, which cannot be handled via email, to be sent/exchanged between the AE and Government.

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**New Team Leader,
Cost & Economic Team
Infrastructure Branch
Engineering & Construction Division**

I would like to take this opportunity to congratulate Mr. Raymond L. Lynn on his recent promotion to Team Leader, Cost & Economic Team, Engineering and Construction Division, Directorate of Civil Works. He brings to this position a wealth of experience and knowledge that will help ensure that we provide effective leadership to represent the Corps and support our Divisions and Districts cost engineering community throughout the U.S. Army Corps of Engineers.

His major responsibilities will be directs the development, establishment and implementation of cost engineering policy and criteria for use by cost engineers throughout the Corps, for the Military, Civil Works and Environmental (HTRW & Remedial Action clean-up) programs.

Ray has an Associates Degree in Applied Science (ASMS) from Bishop State College & a Bachelor of Science Degree in Electrical Engineering (BSEE) from Tennessee State University. He is a registered Tri-Service Cost Engineering Consultant.

He started his professional career with the Proctor & Gamble Company in Memphis, TN in 1977, where he worked for six years as an area/project manager. In 1983 he accepted a job with the Corps of Engineers, at the Mobile District in their Cost Engineering Branch. He worked as an electrical cost engineer for 6 years and then was given the opportunity to move to Headquarters in 1989 after being offered a cost engineering position in the Cost Engineering Branch working on the Programming, Administration and Execution MILCON Validation process.

Since 1989 Ray has worked on numerous projects and special assignments at HQUSACE, including working as an Assistant Director for Military Programs under General Hunter. In Sept 2001 Ray was selected as the new Team Leader for the Cost & Economic Team.

Ray & his wife Felicia have a daughter (Cicely) who attends the University of Memphis, a son (Stephen) who is a sophomore at Howard University and a granddaughter (Nicole).

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Procurement Results

By Tom Chamberland, CESPD

Compared by Mode
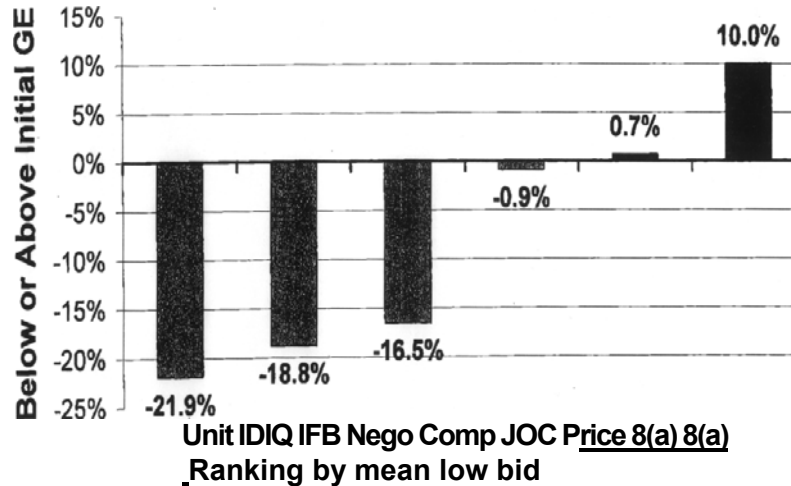
This chart shows the general effect of contract acquisition strategy on contract award amount versus IGE. This data was gathered by Tom Chamberland from projects within South Pacific Division.

WELCOME ABOARD AMI

By Ray Lynn, Headquarters

The Cost and Economic Team would like to welcome another new member, Ami Ghosh. Ami came form the Architectural Team, Infrastructure Branch of the Engineering and Construction Division, Directorate of Civil Works, HQUSACE. He was one of the Senior Architects at HQUSACE, responsible for providing the oversight, coordination and technical review to develop and/or update a number of the Army Standard Designs, including the Basic Trainee Barracks, Physical Fitness Facilities standard. He also served as an instructor for the DA Sustainable Design Development (SDD) workshop and taught the SDD course at various USACE District and Army Installations. Ami's responsibilities here will be to provide the command oversight on

MILCON cost engineering policy, regulations, guidance, technical bulletins and instructions, and Tri-Service Cost Engineering Support Programs – such as the MILCON Program Cost Engineering (ER 1110-3-1300), DD Form 1391 Review and Certification Standard Operating Procedure (ETL 415-3-1), and Parametric Cost Estimating System. Ami is a graduate of the Indian Institute of Technology with a Bachelor of Architecture (B.Arch.) degree and a M.S. in Architecture degree form the Columbia University, New York City.

Before joining the Corps of Engineers, served a Captain in the US Army and provided User's oversight for hospital and health facilities design and construction as a representative for the Office of The Surgeon General (OTSG), Army. He started his career with the Corps of Engineers in the Medical Facilities Office and then moved to the Architectural Branch,

Engineering Division at HQUSACE. Ami is married to Rita Ghosh, M.D., and has a daughter – Konica (in High School)) and a son Kunal (in Middle School).

PACES

By Karen Schofield, CCC, Huntsville Center

In case people don't know **what PACES is all about**, here it is. PACES is a parametric cost estimating system primarily used for preparing budgetary cost estimates traditionally for military construction projects, however, some civil works applications are available in the form of site work models or standard buildings. You can do an estimate in PACES and then export the project file structure and name to MCACES. Then the project can be brought up in MCACES Gold or MFW where you should then make adjustments in order to create your detailed government estimate.   You can also use PACES estimates in PC-Cost and Cost Risk. Also, worth noting, PACES now includes new Anti-terrorism/Force Protection Models. **Hint:** When exporting to MCACES, it's best not to select the PACES ACF checkbox if you will be customizing the cost estimate for your own local information (labor, crews, equipment and UPB databases) in MCACES.

We will be offering a **Corps of Engineers specific PACES training class** coming soon to a regional area near you. The course is in the planning/development stage right now and is expected to be two days in length. I hope to start scheduling regional training to begin in the February/March time frame.   The purpose of the course is to show how to use the program (using examples that are typical of Corps projects), show how it interfaces with MCACES, PC-Cost, & Cost Risk, and how it will help you do budgetary cost estimates.

Division (or district) chiefs should contact me anytime to let me know what your training needs are for PACES so that we can start making the proper arrangements. I will also be in touch soon to work with you on this.

We still have several PACES licenses available if there is anyone who needs one.

Computer Hardware Configuration

By Jim Nichols, Huntsville Center

Computer hardware continues to advance in its capabilities at a lightning fast pace. As soon as we purchase computers, they become out dated.   As these computer systems continue to advance, they improve the efficiencies of computer hardware intensive software programs.   One program, which requires a lot of computer resources, is Mii. This system is being developed so that it will work on older PCs, i.e. 400 MHZ Pentium II PCs with Windows 98, NT or later; but will operate much more efficiently on the newer PCs with 1 GHZ Pentium III or a Pentium IV processor.

Mii (the new 32 bit version of MCACES) is due to be released in early spring 2002. As stated earlier, this software is computer hardware intensive, there are many levels of computation going on at all times, and the most efficient way to operate the software is to bring the databases into resident memory (RAM). In preparation for the Mii software, I have been requested to put out a recommended computer hardware configuration for the district office.   In support of this, I will provide 2 computer configurations, one for a desktop PC and one for a notebook PC. It has been recommended that we include in our recommendations, a proposed recommendation for notebook PCs in order to support those people who are making site visits, attending meetings, etc. (recommend each district have at least 1

notebook PC). Also, we will start putting out on the TRACES web page an updated version of this hardware configuration.

The current recommended hardware configuration is as follows:

Desktop PC
Microsoft Windows 2000 Operating System (XP is currently not recommended by HQUSACE, Mii will also operate on Windows 98, NT and ME)
Intel Pentium IV (1.2 –1.5 GHZ) Processor
Pentium IV compatible motherboard with a 166 MHZ bus system
512 MB RAM
3-D Video Card with 32 MB Video RAM
40 GB hard-drive
DVD Rom w/CD-RW
Speakers and microphone (net meetings)
10/100 Base T network card (coordinate w/IM to make sure compatible w/ network)
19" Monitor capable of minimum of 1024 x 768 resolution

Notebook PC
Microsoft Windows 2000 Operating System (XP is currently not recommended by HQUSACE, Mii will also operate on Windows 98, NT and ME)
Intel Pentium III (1.0 GHZ) Processor
512 MB RAM
3-D Video Card with 32 MB Video RAM
20 GB hard-drive
CD-RW
Docking Station with network card
56 K Modem
15" Active Matrix Screen capable of minimum of 1024 X 768 resolution

Mii Development Status

By Jim Nichols, Huntsville Center

Well, here we are at the end of another calendar year and everyone is wandering what the status is on Mii (the new M32 – MCACES for Windows 32 bit). I would like to spend a few moments to provide you an update on the status of this long awaited software.

We awarded the development of the Mii to Project Time and Cost (PT&C) back in June of this year. At the time this newsletter goes out, we should be receiving the 65% beta software. At this time we will be able to prepare an extensive test to see if the software is operating properly, the project database computation is to be operational at this time. We will automatically see distribution to the Mii developmental team members; if you are not a member of the team and would like to take part in the beta review, please contact me directly and I will be willing to provide you with a copy of the beta software, installation notes, users manual, etc. I will ask that if you are not a member of the team and do participate in the testing of the software, that you provide me directly with your comments on the software. I will review each comment in order to determine if they are in agreement with the scope of work or if the comment should be referred for addition to the Engineering Change Proposal (ECP) system.

We are working towards an official release in early spring of 2002. Will we have the same problems as we had with M32, the software being distributed while still full of significant problems? The answer is that we are trying extremely hard to meet the distribution date, but based upon the agreement, we will not distribute the software prior to approval by the development team.

There have been several other questions concerning the Mii software and continued support of the existing MCACES software

packages. Mii does not contain all the capabilities of MCACES Gold, primarily scheduling, smart assemblies, and modeling. Why are we not distributing a software program prior to it having the capability to replace all the capabilities of MCACES Gold? The answer to this question is two fold, 1) Cost is an issue – funds are limited for the development of the software and 2) we need to get a package out that supports the basic cost engineering requirements as a starting point and then add the other functionality a little at a time. Part of the problem with M32 is that we tried to incorporate all the functionality of MCACES Gold (which was developed over a 5 year period) within the initial release of M32; we tried to bite off too much work at that time.

It is our plan to continue to support MCACES Gold and MFW for a period of time. How long? Now that is the question, we need to continue to provide you with the tools to meet your needs and all the tools will not be initially available. But, we have another problem, soon there will be an operating system adopted by the Corps of Engineers, which will not support DOS based software and thus the time is near when MCACES Gold will be forced out of use just because it can no longer be operated on our PCs.

What about training, several of you have asked about this and pointed out, rightfully so, that you purchased training on M32 to no avail, the software was not stable and failed to meet our needs. Well, unfortunately there is just not enough funds to support everything, HQUSACE will support the development of the course material, but if you would like to procure training on Mii, your office will have to pay the tuition for the training sessions or pay to host training sessions at your office. As we continue to get closer, we will start putting information about the status of Mii on the web site. We will start making plans for training

on Mii, once we have a definite release date for Mii.

We are all somewhat apprehensive with the development of the Mii software; this is normal after being burned so recently with the development of M32. At this point of time, I am quite excited and look forward to the first real beta release of the software. Once this 65% beta software is out on the street, we will be able to see just how close PT&C is to actually meeting the requirements of the statement of work. We will keep you informed.

HAPPY HOLIDAYS